

Appln. No. 09/744,363
Amendment dated May 5, 2004
Reply to Office Action of November 6, 2003

Amendments to the Claims:

Please amend claim 1 as follows. The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). An epitaxial growth furnace comprising:

a sealed chamber; and

5 a pair of wafer holders for holding a pair of semiconductor wafers within said chamber; and

means for rotating each of said wafer holders within said chamber,

wherein formation of an epitaxial layer on a surface of each of said wafers is effected by supplying under a high temperature 10 condition a source gas to a surface area of each of said wafers;

wherein said wafer holders are rotatably supported at the peripheral thereof within said chamber and adapted to arrange said pair of wafers in such a manner that the wafers are disposed in mutually opposing positions with each said surface area

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15 adjacent to and parallel with each other so that a reaction chamber is formed between said wafers;

wherein said surface areas are subject to epitaxial growth within said reaction chamber;

wherein each of said wafer holders comprises:

20 an opening for exposing one of said surface areas of the wafers to said reaction chamber;

an opening flange adapted for engagement with a chamfered tapered face of a whole peripheral edge of one of said wafers on a side of said surface area thereof;

25 a plurality of jaws for detachably engaging with an outer periphery of one of the wafers on a back surface side of said surface area thereof;

a plurality of springs for respectively thrusting said jaws toward a center of said opening; and

30 detachable actuating means for locking each of said jaws in a released position against respective thrust forces from said springs; ~~and~~

wherein said jaws, said springs and said detachable actuating means are positioned only on said back surface side of 35 each of said wafers, and

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wherein said means for rotating each of said wafer holders
comprises:

a rotating fin including a plurality of vanes attached
onto the outer peripheral of each of said wafer holders; and

40 rotating gas supply means for blowing a fin rotating
gas to said vanes to cause said wafers to be rotated about a
rotation axis along with each of said wafer holders within said
chamber.

Claim 2 (Previously Presented). An epitaxial growth furnace according to claim 1, wherein the opening flange of each of said wafer holders is adapted to contact only with the chamfered tapered face of the whole peripheral edge of one of said wafers 5 on the side of said surface area thereof which is subject to epitaxial growth.

3. Cancelled

Claim 4 (Previously Presented). An epitaxial growth furnace according to claim 2, wherein each of said jaws includes an inclined face corresponding to the chamfered tapered face of the

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peripheral edge of one of the wafers on said back surface side
5 thereof.

Claim 5 (Previously Presented). An epitaxial growth furnace
according to claim 1, wherein said pair of wafer holders are
adapted for vertical arrangement of said pair of semiconductor
wafers so that the wafers are placed upright with each wafer
5 surface vertically arranged in the reaction chamber.